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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/608,285	06/27/2003	Yiren Hong	STL11183	8533

7590 12/02/2004

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EXAMINER

TUPPER, ROBERT S

ART UNIT	PAPER NUMBER
2652	

DATE MAILED: 12/02/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/608,285

Applicant(s)

HONG ET AL.

Examiner

Robert S Tupper

Art Unit

2652

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 27 June 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-20 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 27 June 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>6/27/03</u> | 6) <input type="checkbox"/> Other: _____ |

Art Unit: 2652

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 1-6, 9-13, 15-17, 19, and 20 are rejected under 35 U.S.C. 102(b) as being clearly anticipated by HAGA (5,214,552).

Note figures 2-5. HAGA shows a disk drive with an actuator having an arm portion (13A2) that is offset from a fantail portion (see 13A in figure in figure 4). The fantail portion mounts a voice coil motor coil (17) which lying partially within the plane of the arm portion (13A2). The planes of the fantail portion and the arm portion are parallel. The voice coil motor coil and parts of the coil mount are in the same plane (re claims 2 and 15). Note that these claims do not require that ALL portions of the fantail assembly be in the same plane as the coil. The fantail assembly is clearly stepped (see especially figures 3 and 5) and are curved (see figure 4). The fantail portion has two side portions (13A3) that support the coil.

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Art Unit: 2652

4. Claims 7, 8, 14, and 18 are rejected under 35 U.S.C. 103(a) as being unpatentable over HAGA (5,214,552).

HAGA shows a disk drive with actuator structure, and a method of making it, substantially as claimed.

HAGA differs in not : (A) using an adhesive to mount the bearing cartridge (re claim 7), (B) specifying an epoxy adhesive (re claims 8 and 18), and (C) specifying stamping the arm (re claim 14).

Concerning (A), HAGA press fits the bearing cartridge into place. It would have been obvious to one of ordinary skill in the art at the time the invention was made to utilize an adhesive to mount the bearing cartridge. The motivation is as follows: these are art recognized equivalents that operate in the same manner and produce the same results without any unexpected results.

Concerning (B), HAGA simply does not identify a specific adhesive. HAGA does utilize a heat cured adhesive to mount the coil (see column 5 lines 42-44). It would have been obvious to one of ordinary skill in the art at the time the invention was made to utilize an epoxy adhesive in HAGA. The motivation is as follows: epoxy adhesives are well known and commonly used in disk drive structures. One of ordinary skill in the art would use any such known adhesive where no specific adhesive is specified.

Concerning (C), HAGA does not specify how the arm is formed. It would have been obvious to one of ordinary skill in the art at the time the invention was made to form the arm in HAGA using stamping. The motivation is as follows: stamping suspension components is well known and commonly used in disk drives. One of

Art Unit: 2652

ordinary skill in the art would use any such a known method where no specific method is specified.

5. Claim 20 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

On line 5, "optimizing... cartridge" is indefinite. It is unclear what is being claimed.

6. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

LAU et al and McREYNOLDS et al are patents to the assignee of this application that show similar actuator arm structures of interest.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Robert S Tupper whose telephone number is 703-308-1601. The examiner can normally be reached on Mon - Fri, 6:00 AM - 3:30 PM (first Fri off).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Hoa Nguyen can be reached on 703-305-9687. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Art Unit: 2652

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

A handwritten signature in black ink, reading "R.S. Tupper". The signature is written in a cursive, flowing style.

Robert S Tupper
Primary Examiner
Art Unit 2652

rst